

Learning to Live • Loving to Learn



# CHARLES BARRETT ELEMENTARY WALKABOUT: Existing Conditions, Findings and Recommendations

July 2017

# CHARLES BARRETT ELEMENTARY WALKABOUT DETAILS

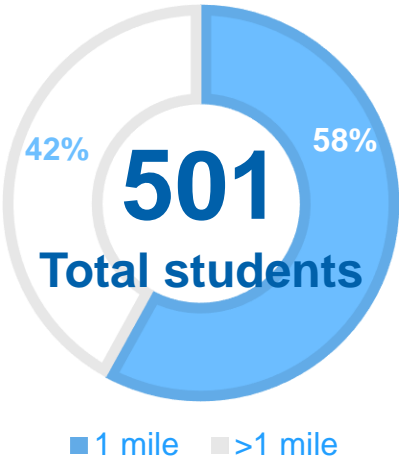
- **Date:** May 16, 2017
- **Observation:** Arrival
- **Participants:**
  - Toole Design Group staff
  - City of Alexandria Transportation Planning staff
  - Alexandria Bicycle & Pedestrian Advisory Committee members
  - Charles Barrett staff and administrators
  - Charles Barrett parents
- **Purpose:**
  - Observe school arrival process
  - Evaluate school-zone infrastructure
  - Assess existing Safe Routes to School programming

**Note:** At the time of the Walkabout, Martha Custis Drive had just been repaved and was missing standard pavement markings. The pavement markings have since been reapplied.

# OVERVIEW OF CHARLES BARRETT ELEMENTARY SCHOOL

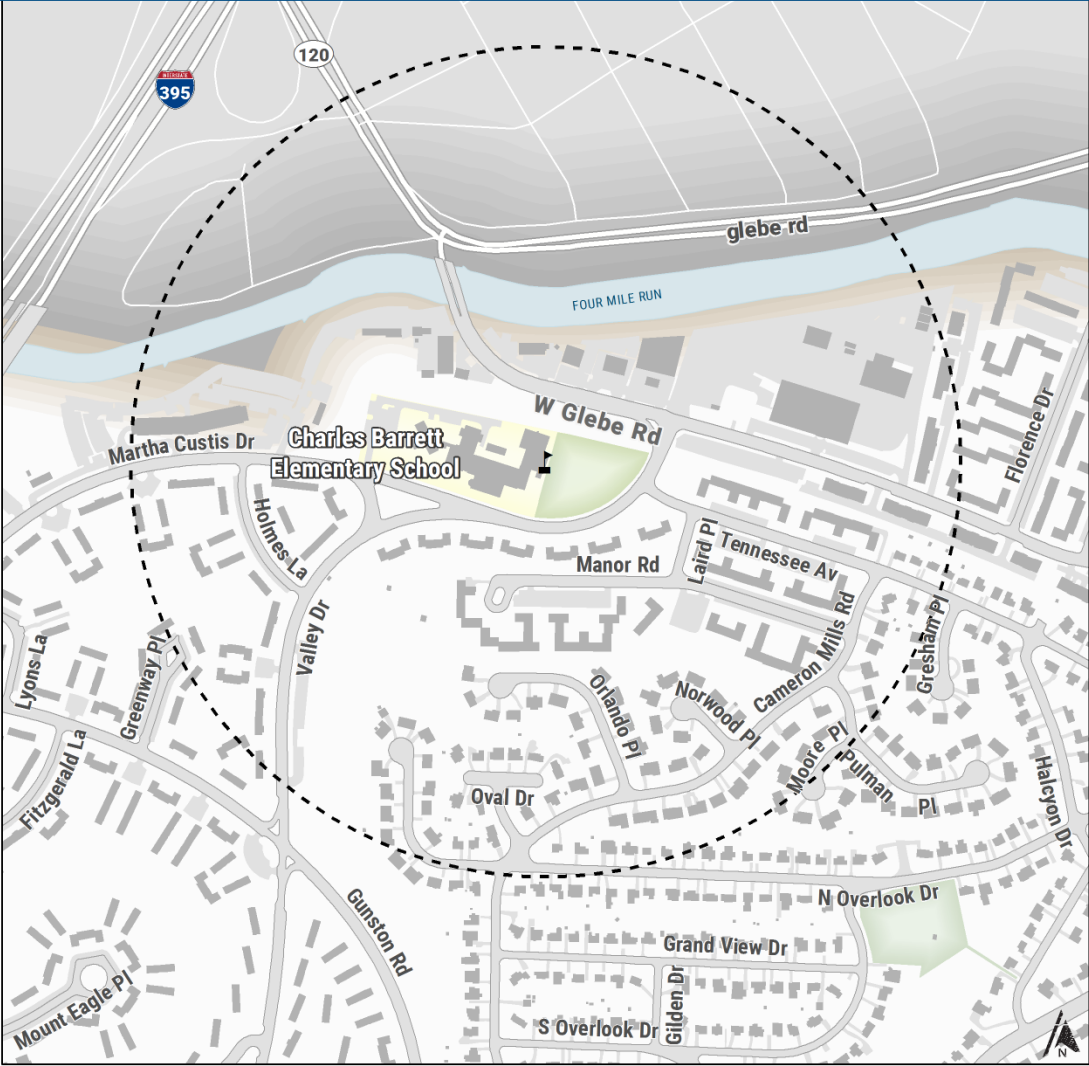
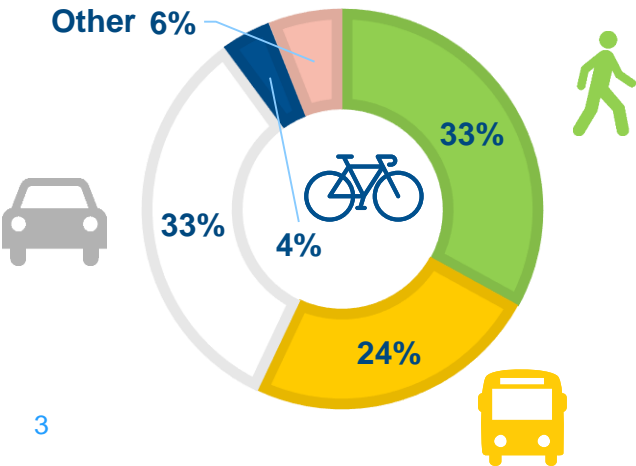
## STUDENT DISTANCE FROM SCHOOL

As reported in 2016 Parent Survey (n=54)



## STUDENT TRAVEL MODES

Average of “to school” and “from school” modes as reported in 2014 Student Travel Tallies.



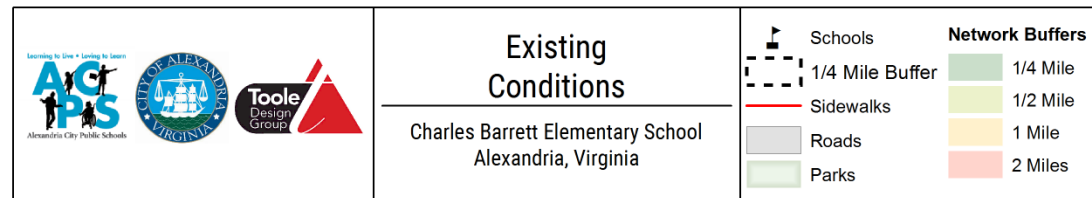
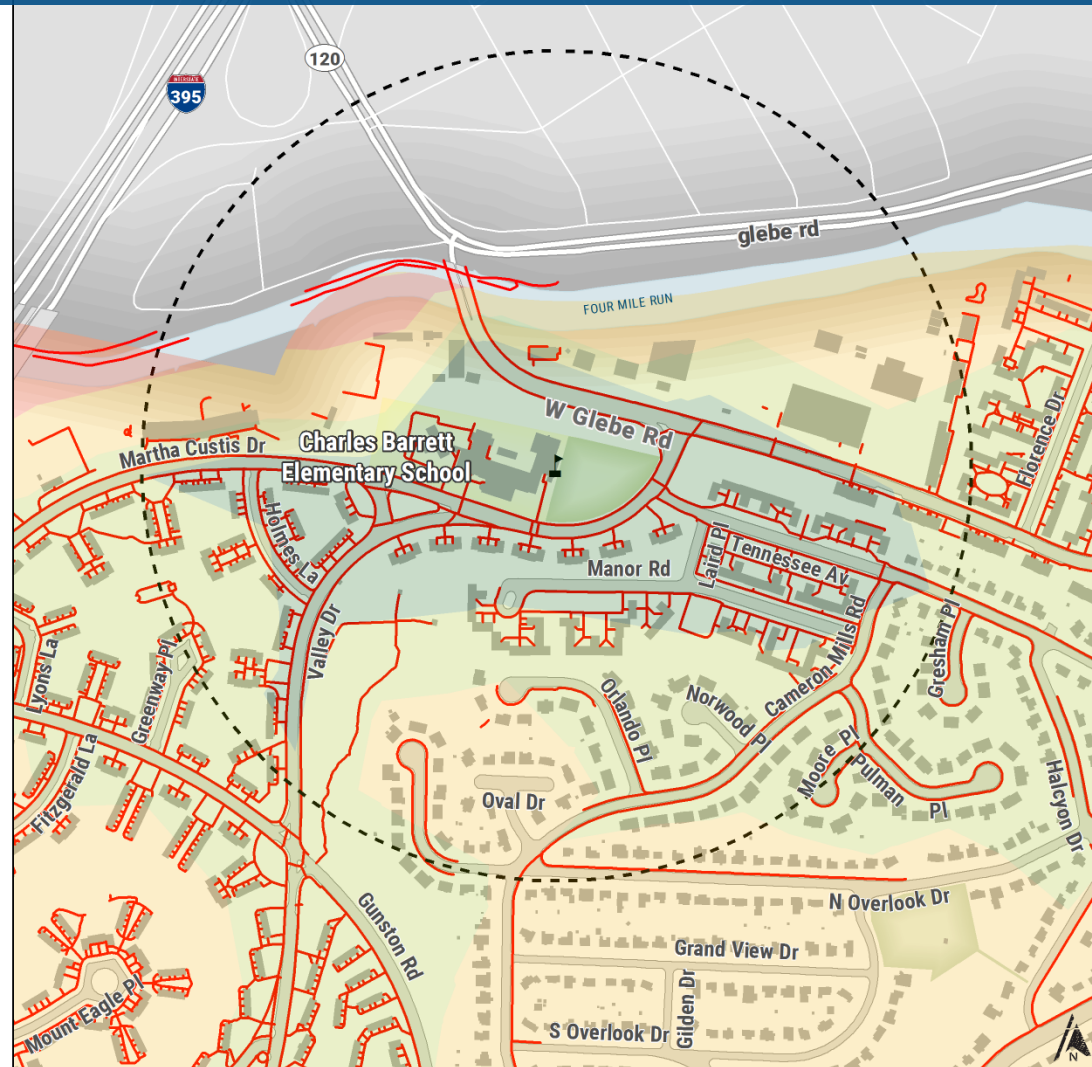
			<b>Overview Map</b> Charles Barrett Elementary School Alexandria, Virginia	Schools
				1/4 Mile Buffer
				Parks
				Roads

# STUDENT DISTANCE FROM SCHOOL DETAIL

Distance	Percentage of Students
¼ mile	4%
½ mile	19%
1 mile	35%
2 miles	25%
>2 miles	17%

As reported in 2016 Parent Survey (n=54)

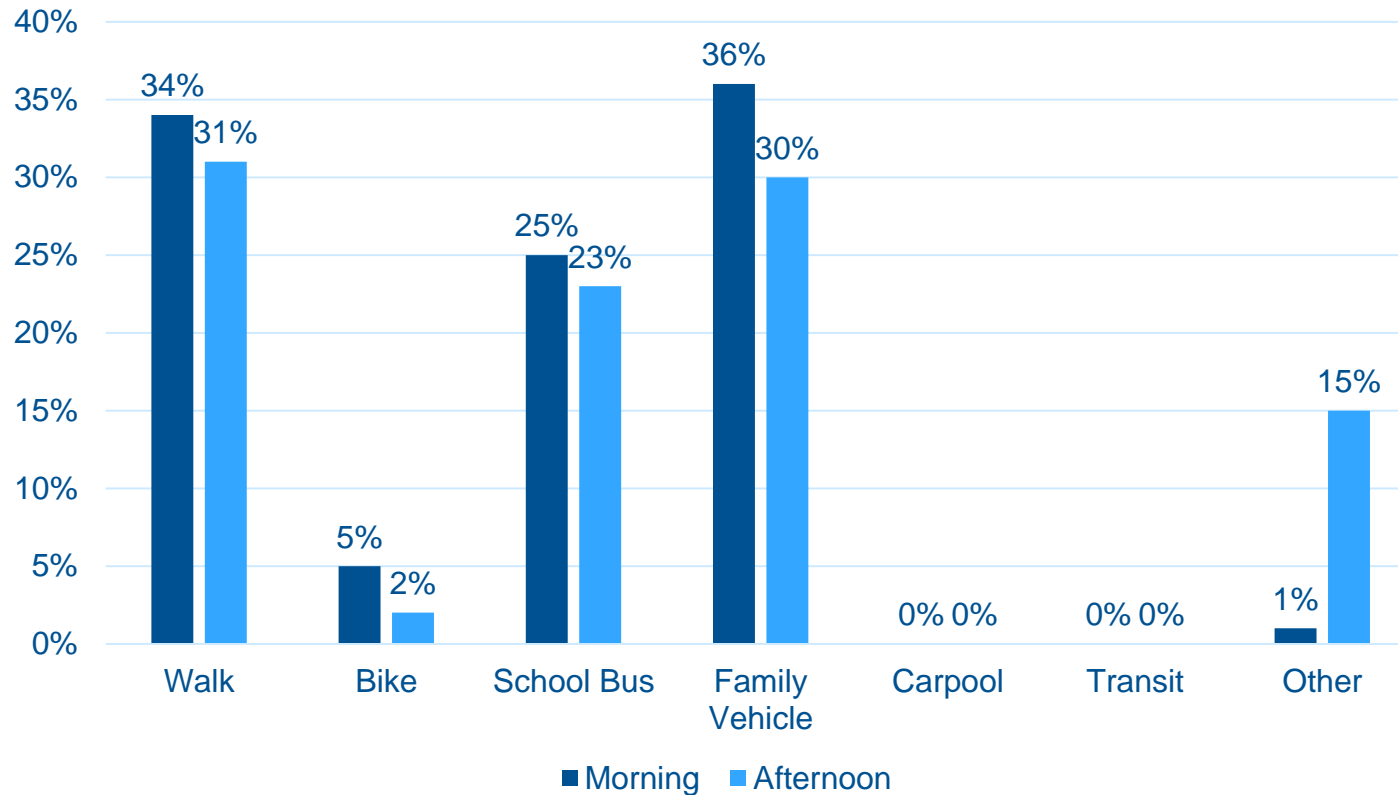
The hollow circle on the map represents a direct distance buffers from the school. The colored polygons show the distance along the road network.



# EXISTING CONDITIONS

# TRAVEL PATTERNS

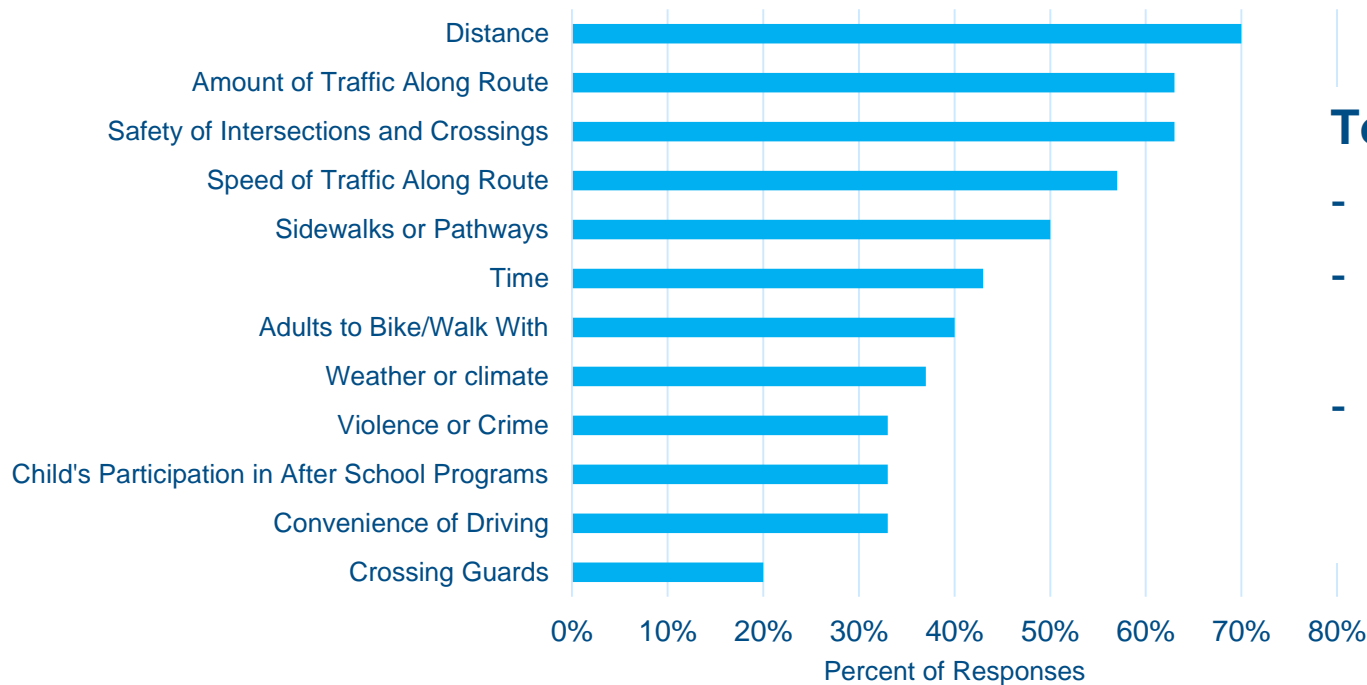
## Morning and Afternoon Travel Mode Comparison



Fall 2014 Student Travel Tallies

# TRAVEL PATTERNS (cont.)

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



## Top 3 issues:

- Distance (70%)
- Amount of traffic along route (63%)
- Safety of intersections and crossings (63%)

Fall 2016 Parent Survey  
(n=54)

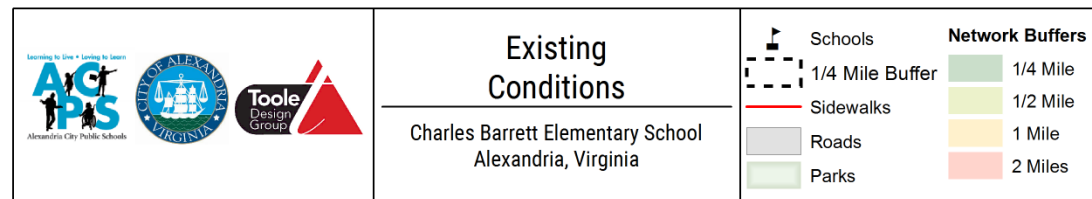
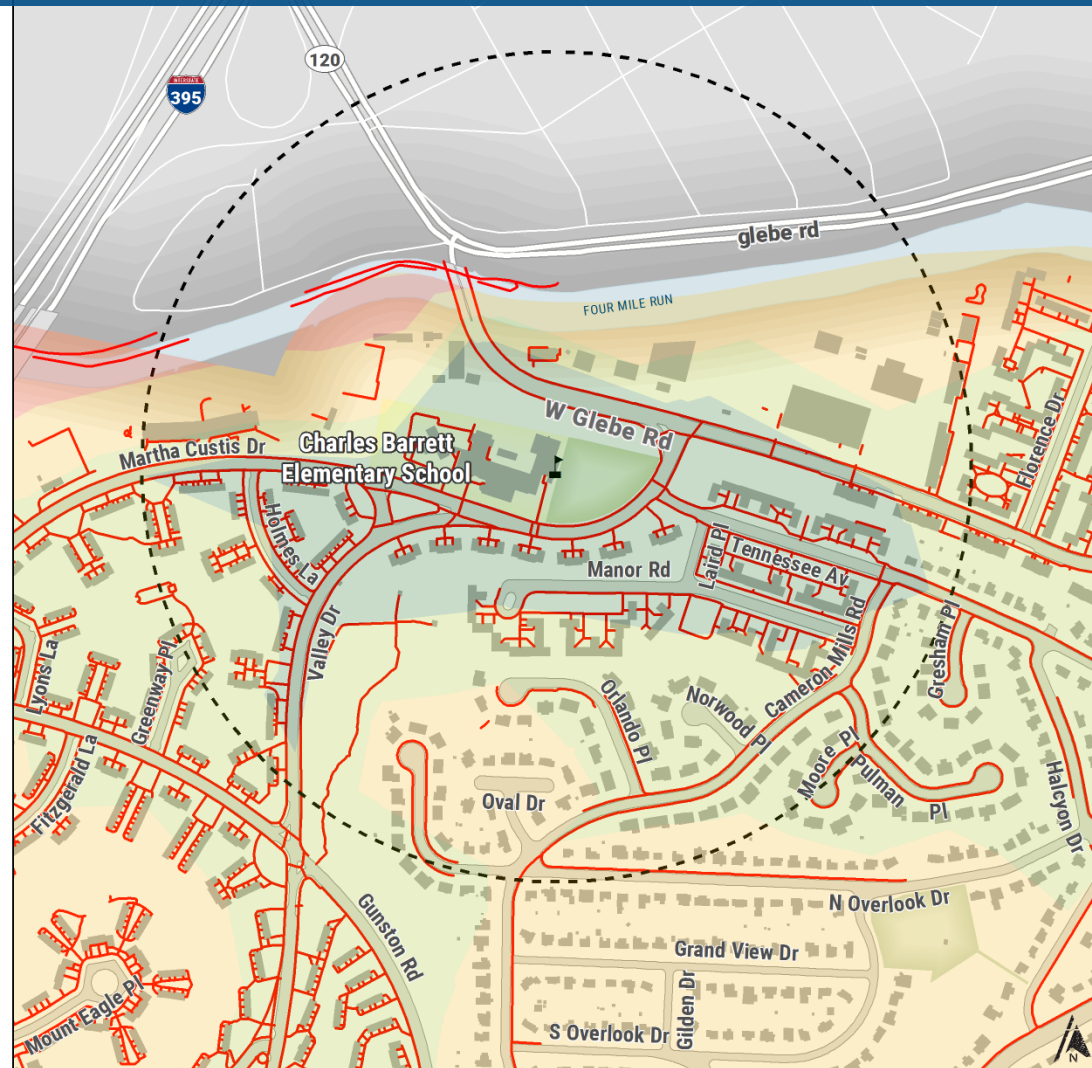


# PEDESTRIAN NETWORK

**Sidewalks** – There are sidewalks on both sides of W Glebe Road, Martha Custis Drive and Valley Drive. Not all neighborhood streets have sidewalks on both sides, and some are missing sidewalks entirely.

**Crosswalks** – There are two raised crosswalks with high visibility markings in front of the school; one at the front entrance and the other in front of the parent drop off area. A few intersections within a ¼ mile of the school lack marked crossings.

**Curb ramps** – Curb ramps at the intersections closest to the school meet current ADA requirements, but other curb ramps in the vicinity do not.





# BICYCLING NETWORK

## Martha Custis / Valley Drives

– Two lane roadways with on-street parking and shared lane markings used by adult commuter bicyclists. Students that bicycle to school use the sidewalks.

**W Glebe Road** – Four lane roadway with shared lane markings in outside lanes; important link to Four Mile Run Trail.

**Residential Streets** – Some residential streets near the school with low traffic volumes and speeds may be suitable for older students to bicycle.



# ARRIVAL OBSERVATIONS

## Arrival

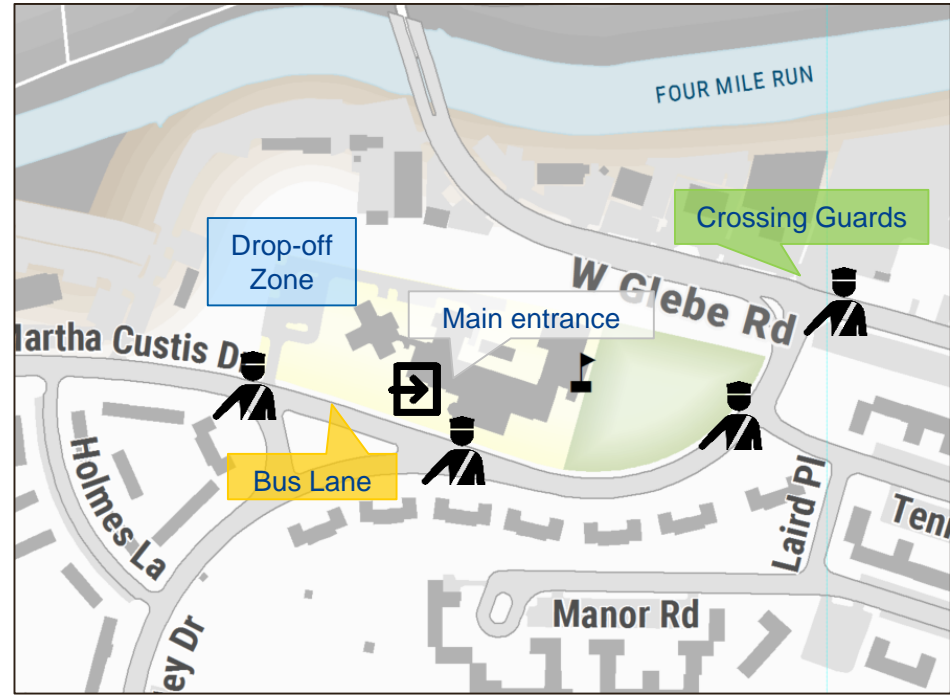
- All students line up in front of the main entrance on Martha Custis Drive
- School starts at 8:00 AM, with most students arriving between 7:45 and 8:00 AM

## Bus Lane

- School buses drop off students on the north curb of Martha Custis Drive

## Parent Drop-off

- The designated parent drop-off zone is in the parking lot to the west of the school building



# ARRIVAL OBSERVATIONS

## Bus Lane

- There are 6 buses that drop off on the north curb of Martha Custis Drive.
- There are posted signs restricting stopping and parking in the bus lane from 7 AM to 4 PM on school days.
- When the buses unload, their stop signs are extended and all traffic on Martha Custis Drive must stop.



Bus lane signage



# ARRIVAL OBSERVATIONS

## Parent Drop-off

- The designated drop-off loop is in the school parking lot to the west of the school building.
- There are several signs posted directing parents to pull forward and stay with their vehicles.
- The drop-off loop is busiest from 7:48 to 7:58 AM.
- Parents may also use the short term parking spaces on the north side of Martha Custis Drive to the east of the school for drop-off.
- Drop-offs were also observed:
  - On the south curb of Martha Custis Drive
  - In the Parc East Condominium parking lot west of the school



# ARRIVAL OBSERVATIONS

## Martha Custis Drive

- There are two raised crosswalks with high visibility markings on Martha Custis Drive in front of the school; one at the front entrance (top) and other in front of the parent drop-off area (bottom).
- The crosswalk at the school entrance is at a 3-way, stop controlled intersection. Traffic on Martha Custis Drive is not stop-controlled at the crosswalk at the parent drop-off area.
- Both raised crossings have crossing guards posted to cross students and direct traffic. At the crosswalk at the drop-off area, the City-provided crossing guard also helps direct traffic.
- Martha Custis Drive is a transit route for both WMATA and DASH buses, and both intersections are very busy leading up to the start of the school day.





# ARRIVAL OBSERVATIONS

## Valley Drive and Tennessee Avenue

- There is a City crossing guard stationed at this intersection (top).
- Existing curb ramps do not meet ADA standards or provide access to all legal crossings and nearby bus stops.



## Valley Drive and W Glebe Road

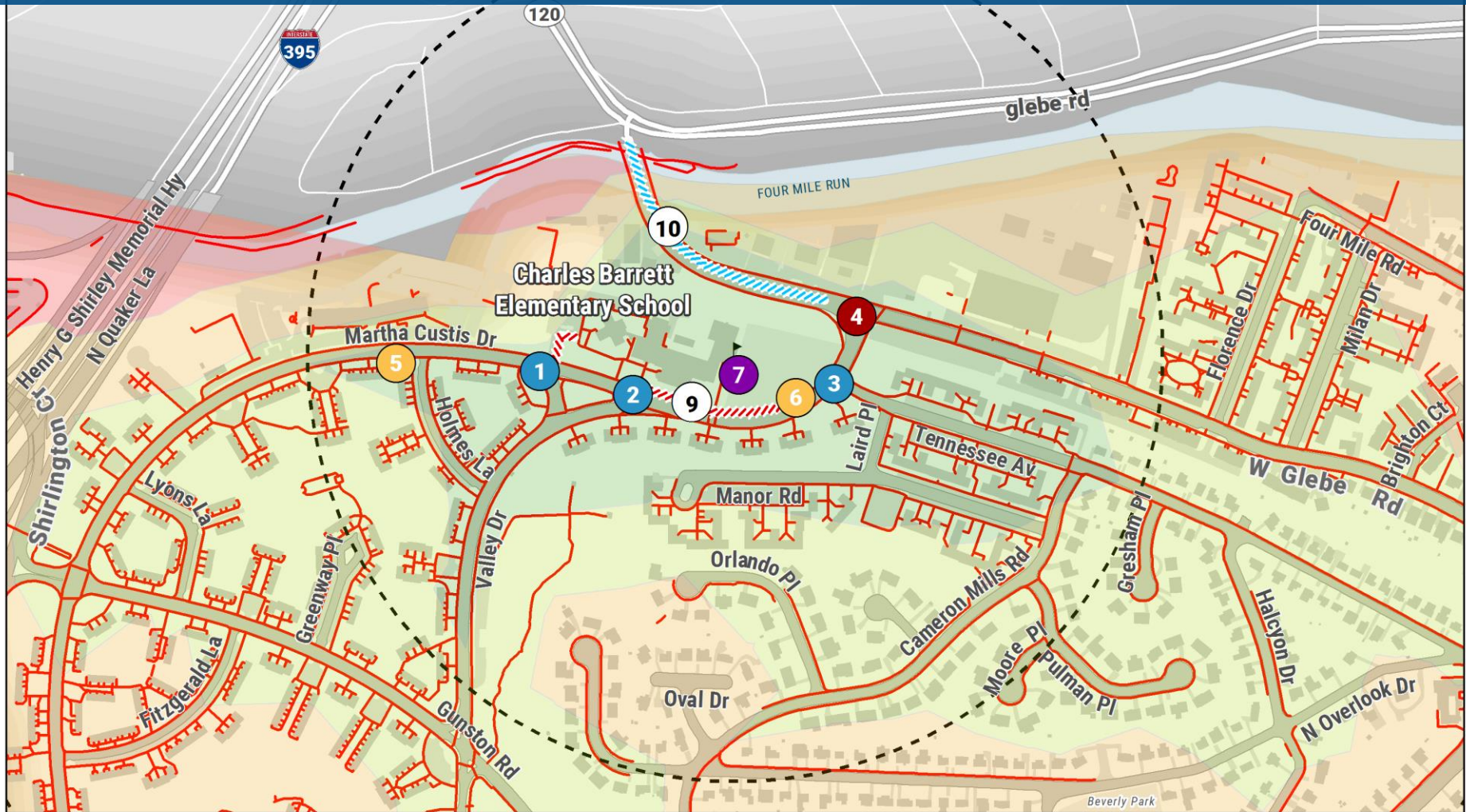
- There is a City crossing guard stationed at this signalized intersection (bottom).
- Students who walk from the multi-family housing on W Glebe Road and Florence Drive must often cross W Glebe Road at this intersection.
- Only two of the three legal crossings are marked.
- There is a free right turn lane for eastbound W Glebe Road traffic to turn onto Valley Drive.



# ENGINEERING RECOMMENDATIONS



# INFRASTRUCTURE RECOMMENDATIONS MAP



## Infrastructure Recommendations

Charles Barrett Elementary School  
 Alexandria, Virginia



# GENERAL RECOMMENDATIONS WITHIN ¼ MILE OF SCHOOL

## Recommendation

Reinstall speed tables on Martha Custis Drive that were removed for repaving

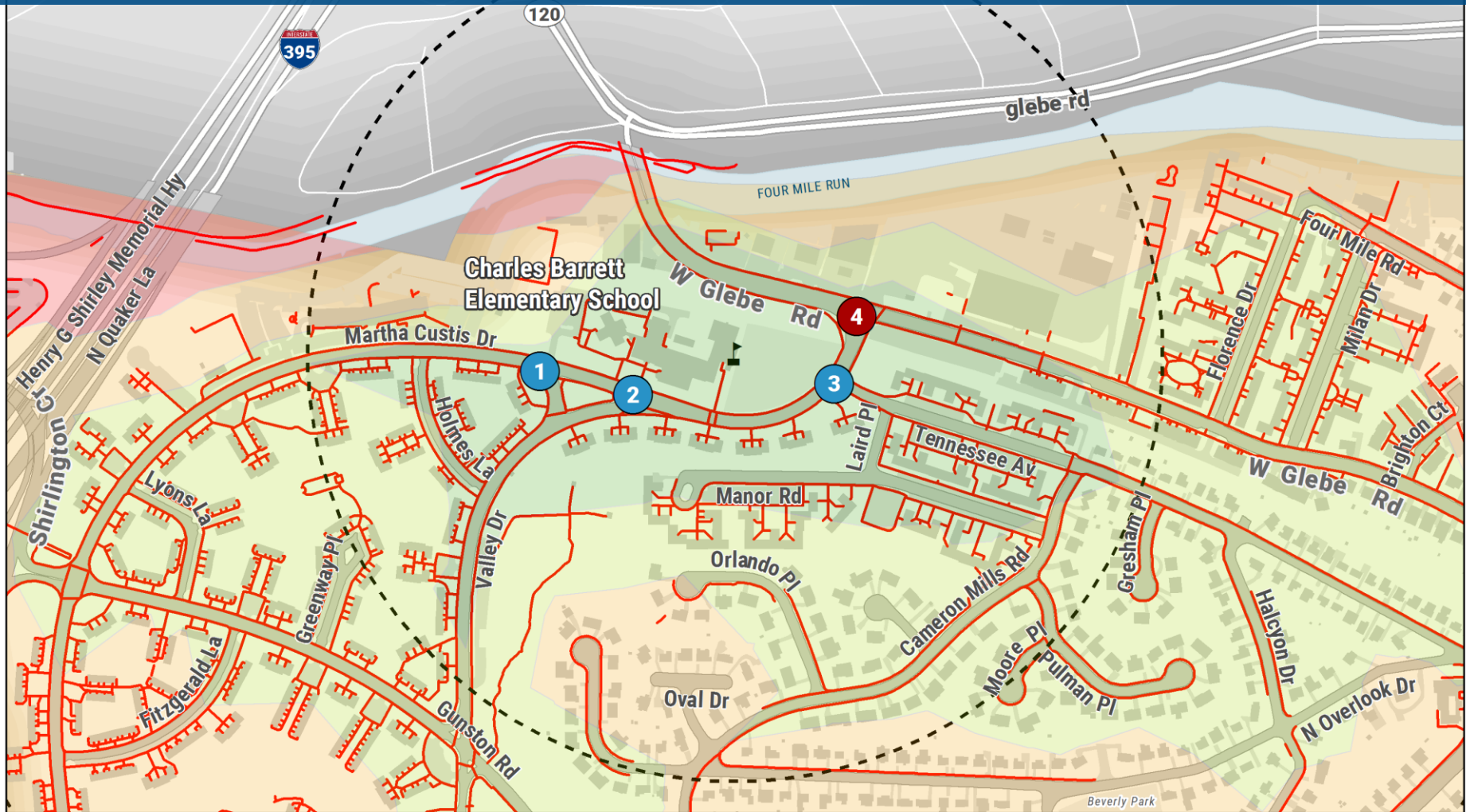
Update curb ramps to meet current ADA guidelines



At the time of the walk audit, Martha Custis Drive lacked lane lines and other pavement markings (left). Markings have since been reinstalled (right).



# INTERSECTION RECOMMENDATIONS



## Infrastructure Recommendations

Charles Barrett Elementary School  
 Alexandria, Virginia

- Intersection Recommendations
- Mid-Block Recommendations
- School Zone Signage Recommendations
- Signalized Intersection Recommendations
- Other Recommendations
- Schools
- 1/4 Mile Buffer
- Sidewalks
- Network Buffers**
  - 1/4 Mile
  - 1/2 Mile
  - 1 Mile
  - 2 Miles

# INTERSECTION RECOMMENDATIONS

Map ID	Issue	Recommendation	Timeframe*
1	Pedestrian crossing sign on westbound approach is difficult to see	Add pedestrian crossing signs on reverse sides of existing signs so that they are visible from both directions	Short
2	Cones are being used to daylight the raised crosswalk in front of the school entrance and provide a refuge for the staff crossing guard and student safety patrol	Install curb and sidewalk to keep crosswalk clear of parked cars and create a permanent refuge for the crossing guard and safety patrol	Medium
3	Missing curb ramps	Add ADA compliant curb ramps at the ends of both marked crosswalks	Short
	Outdated S1-1 school area sign	Update school area sign	Short

\* Short = within 1 year, Medium = within 3 years, Long = 3 or more years

# INTERSECTION RECOMMENDATIONS

Map ID	Issue	Recommendation	Timeframe*
4	Crosswalks have faded, parallel line markings	Restripe crosswalks with high visibility crosswalk markings	Short
	No pedestrian signals on south leg of intersection	Install pedestrian signal heads on south leg of intersection	Short
	No marked crosswalk or pedestrian signals on west leg of intersection	Add high visibility crosswalk markings and pedestrian push buttons and signal heads to the west leg of the intersection	Short
	Drivers making right turns on red from Valley Drive do not always yield to pedestrians crossing W Glebe Road	Restrict right turns with 'No Turn on Red' signs during arrival and dismissal when pedestrian volumes are at their highest	Short
	Curb ramps do not meet ADA requirements	Reconstruct curb ramps to meet current ADA requirements	Medium
	Slip lane from W Glebe Road to Valley Drive permits high speed right turns and creates an additional potential conflict point between motor vehicles and pedestrians	Reconstruct intersection without slip lane, reducing turning speeds and pedestrian crossing distance	Medium

\* Short = within 1 year, Medium = within 3 years, Long = 3 or more years



# INTERSECTION RECOMMENDATIONS

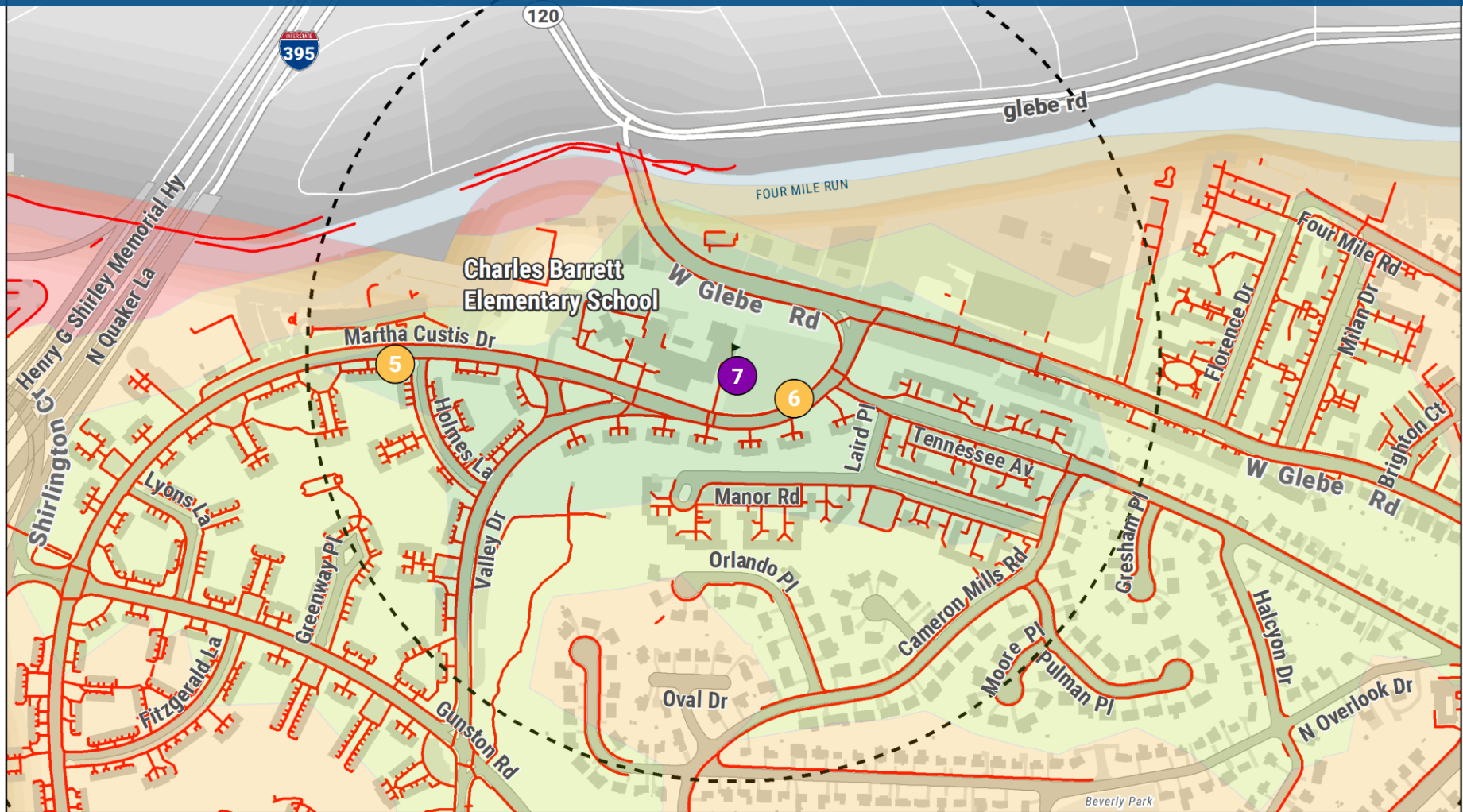


Some of the curb ramps at the intersection of Martha Custis Drive and Tennessee Avenue are missing detectable warnings and do not meet current ADA standards.



Standing on the southwest corner of Valley Drive and looking north across W Glebe Road where there is no marked crosswalk or pedestrian signal head.

# NON-INTERSECTION RECOMMENDATIONS



## Infrastructure Recommendations

Charles Barrett Elementary School  
 Alexandria, Virginia

- Intersection Recommendations
- Mid-Block Recommendations
- School Zone Signage Recommendations
- Signalized Intersection Recommendations
- Other Recommendations
- Schools
- 1/4 Mile Buffer
- Sidewalks
- Network Buffers**
- 1/4 Mile
- 1/2 Mile
- 1 Mile
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# NON-INTERSECTION RECOMMENDATIONS

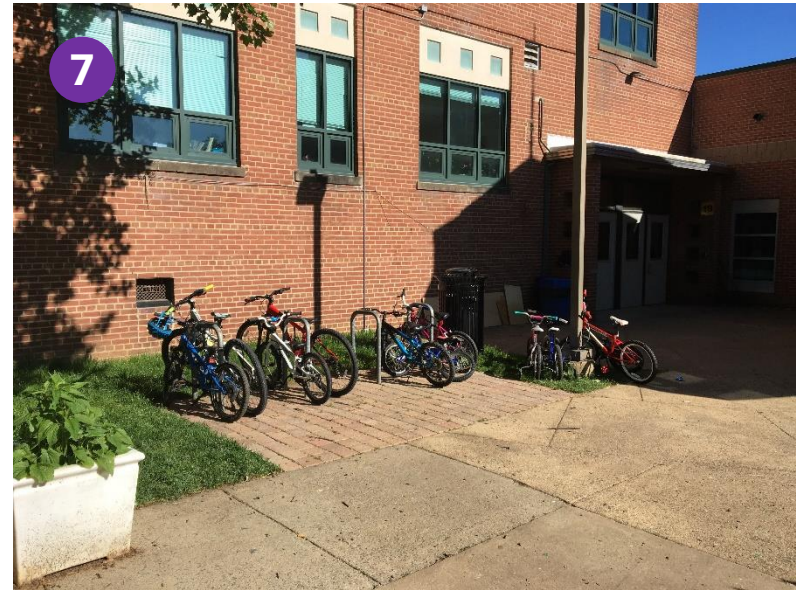
Map ID	Issue	Recommendation	Timeframe*
5	Flashing school zone speed limit sign is blocked by tree limbs	Trim tree limbs in front of school zone sign and update flashing sign.	Short
6	Flashing school zone speed limit sign is currently located on the west side of Valley Drive just north of the intersection with Tennessee Avenue and is not visible to drivers turning left from Tennessee Avenue	Relocate flashing school zone sign approximately 100-feet south of its current location. Update flashing sign.	Medium
7	School and recreation center currently share one bike rack and demand often exceeds supply; school has requested additional bike racks, but they have not been delivered	Install additional inverted-U bike racks for school and recreation center use	Short

\* Short = within 1 year, Medium = within 3 years, Long = 3 or more years

# NON-INTERSECTION RECOMMENDATIONS

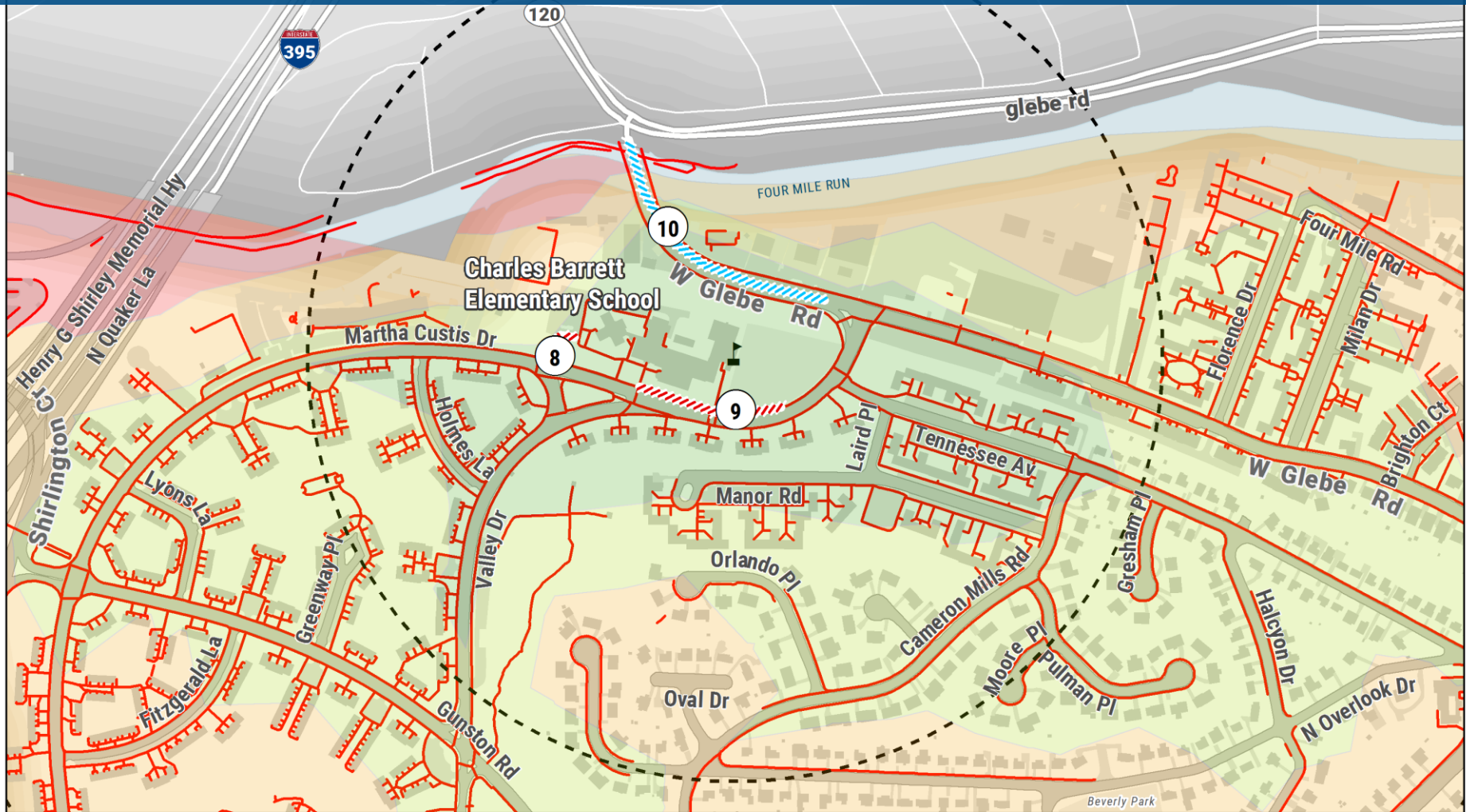


The flashing school zone speed limit sign west of the school is obscured by vegetation.



The bicycle racks near the entrance to the recreation center are nearly full.

# LINEAR RECOMMENDATIONS



## Infrastructure Recommendations

Charles Barrett Elementary School  
 Alexandria, Virginia



# LINEAR RECOMMENDATIONS

Map ID	Issue	Recommendation	Timeframe*
8	No accessible pedestrian route through school parking lot	Build sidewalk along playground fence to connect sidewalk on Martha Custis Drive to sidewalk at kindergarten entrance	Medium
9	Sidewalk on the north side of Martha Custis Drive is not wide enough to accommodate all pedestrian activity during arrival	Expand sidewalk to fence along school / recreation center property	Medium
10	Four travel lanes on W Glebe Road between S Glebe Road and Valley Drive encourage speeding and midblock U-turns  No dedicated bicycle facility to connect to the Four Mile Run Trail	Study feasibility of road diet to reduce the number of travel lanes on W Glebe Road to improve safety and accommodate an enhanced bicycle corridor as recommended in the Pedestrian and Bicycle Master Plan. Implement if considered feasible.	Short (study) / Long (implementation)

\* Short = within 1 year, Medium = within 3 years, Long = 3 or more years



# LINEAR RECOMMENDATIONS



Looking south towards Martha Custis Drive from the school parking lot. There is no accessible pedestrian route through the parking lot from the sidewalk on Martha Custis Drive to the school's internal sidewalks.



Cones are being used to daylight the raised crosswalk in front of the school entrance and provide a refuge for the staff crossing guard and student safety patrol.

The standard 5-foot sidewalk gets crowded with parent drop-offs and through pedestrian traffic during arrival.

# PROGRAMMATIC RECOMMENDATIONS

# EDUCATION

Recommendation	Continue Existing	Start New
Integrate pedestrian and bicycle safety education into the school curriculum.		●
Conduct a bicycle rodeo to teach the skills and precautions to ride a bike safely.		●
Incorporate information about walking and bicycling to school in communications with parents.	●	
Provide parents and guardians with safe driving information that stresses the importance of driving safely in school zones and being alert for pedestrians and bicyclists during arrival and dismissal.		●





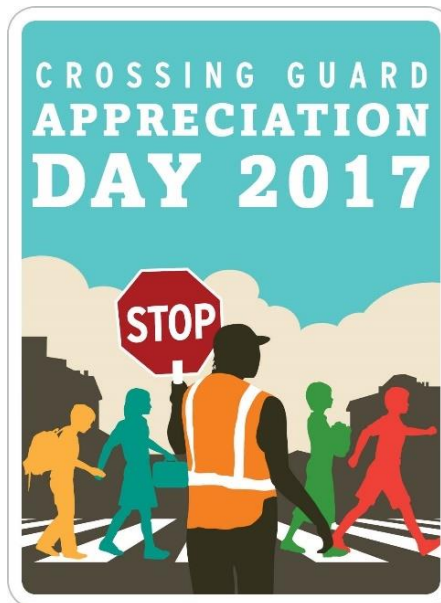
# ENCOURAGEMENT

Recommendation	Continue Existing	Start New
Participate in International Walk to School Day and Bike to School Day.		●
Help organize and support walking schools buses.		●
Help organize and support bike trains.		●
Establish a frequent walker / bicyclist program.		●



# ENFORCEMENT

Recommendation	Continue Existing	Start New
Establish a driver pledge program.		●
Celebrate Virginia Crossing Guard Appreciation Day.		●
Work with the police department to provide periodic parking and traffic enforcement near the school.	●	



# EVALUATION

Recommendation	Continue Existing	Start New*
Conduct Student Travel Tallies to get baseline data for student travel patterns.	●	
Administer Parent Surveys to collect information on parents' attitudes towards walking and bicycling and reasons why they may or may not allow their children to walk or bike to school.	●	

*\*Travel Tallies and Parent Surveys at Charles Barrett Elementary School were last collected in the fall of 2014 and 2016, respectively. Up to date information is required to monitor program success and apply for federal SRTS funding.*

